

IN THE CLAIMS

Please amend the Claims as follows:

Claims 1-9 (Cancelled)

10. (Previously Presented) A method of manufacturing fuel cell bipolar plates, comprising the steps of:

forming using a wet-lay process a composite material comprising graphite particles, thermoplastic polymer, and reinforcing fibers, wherein the bulk conductivity is at least 150 S/cm;

depositing at least a second polymer on a top and bottom of said composite material; and producing the bipolar plates from the composite material with the deposited second polymer.

11. (Previously Presented) The method of claim 10 wherein said producing step is performed by compression molding.

12. (Original) The method of claim 10 wherein said forming step includes the steps of: forming a plurality of sheets from graphite particles, thermoplastic fibers and reinforcing fibers using a wet-lay process; consolidating a stack of said plurality of sheets; obtaining a blank from a consolidated stack, wherein said blank is used in said molding step.

13. (Original) The method of claim 10 wherein said reinforcing fibers are selected from the group consisting of carbon and glass.

14. (Previously Presented) The method of claim 10 wherein said producing step introduces at least one feature into said bipolar plates.
15. (Original) The method of claim 14 wherein said at least one feature is a gas flow channel.
16. (Previously Presented) The method of claim 10 wherein said depositing step comprises depositing a second polymer different from said thermoplastic polymer on the top and the bottom of said composite material.
17. (Cancelled)
18. (Previously Presented) The method of claim 10 wherein the depositing step comprises depositing the second polymer and graphite particles on the top and the bottom of said composite material.
19. (Previously Presented) The method of claim 10 wherein said forming and producing steps occur simultaneously or sequentially.
20. (Previously Presented) The method of claim 10 wherein said composite material produced in said forming step includes a first polymer in a core of said composite material and another polymer, different from said first polymer, on a surface of said core.
21. (Previously Presented) The method of claim 10, wherein the graphite particles are in an amount of at least 50 wt%.

22. (Previously Presented) The method of claim 10, wherein the graphite particles are in an amount of at least 65 wt%.
23. (New) A method of manufacturing fuel cell bipolar plates, comprising the steps of:
forming a composite material comprising graphite particles, thermoplastic polymer, and reinforcing fibers, wherein the bulk conductivity is at least 150 S/cm;
depositing at least a second polymer on a top and bottom of said composite material; and
producing the bipolar plates from the composite material with the deposited second polymer.
24. (New) The method of claim 23 wherein said producing step is performed by compression molding.
25. (New) The method of claim 23 wherein said forming step includes the steps of: forming a plurality of sheets from graphite particles, thermoplastic fibers and reinforcing fibers using a wet-lay process; consolidating a stack of said plurality of sheets; obtaining a blank from a consolidated stack, wherein said blank is used in said molding step.
26. (New) The method of claim 23 wherein said reinforcing fibers are selected from the group consisting of carbon and glass.
27. (New) The method of claim 23 wherein said producing step introduces at least one feature into said bipolar plates.
28. (New) The method of claim 27 wherein said at least one feature is a gas flow channel.

29. (New) The method of claim 23 wherein said depositing step comprises depositing a second polymer different from said thermoplastic polymer on the top and the bottom of said composite material.
30. (New) The method of claim 23 wherein the depositing step comprises depositing the second polymer and graphite particles on the top and the bottom of said composite material.
31. (New) The method of claim 23 wherein said forming and producing steps occur simultaneously or sequentially.
32. (New) The method of claim 23 wherein said composite material produced in said forming step includes a first polymer in a core of said composite material and another polymer, different from said first polymer, on a surface of said core.
33. (New) The method of claim 23, wherein the graphite particles are in an amount of at least 50 wt%.
34. (New) The method of claim 23, wherein the graphite particles are in an amount of at least 65 wt%.